

Remarks

The various parts of the Office Action (and other matters, if any) are discussed below under appropriate headings.

Claim Objections

Independent claim 1 has been amended to correct an informality relating to “the common linear axis.” Therefore, the objection should be withdrawn.

Claim Rejections - 35 USC § 112

Claim 8 was rejected for recitation of “said angle” without sufficient antecedent basis. The claim has been amended to recite “said obtuse angle.” Therefore, the rejection should be withdrawn.

Claim Rejections - 35 USC § 102 and § 103

Independent claims 1, 16, 19 and 36 stand rejected under 35 USC §103(a) as being unpatentable over U.S. Patent No. 6,593,957 (“Christie”) in view of U.S. Patent No. 5,598,282 (“DeGroof”), and further in view of U.S. Patent No. 5,638,082 (“Grimm”).

Further, claims 8-9, 18, 21, 28, 29, 31, 37 and 40 stand rejected under 35 USC §103(a) as being unpatentable over Christie in view of DeGroof and further in view of Grimm and U.S. Patent No. 4,995,718 (“Jachimowicz”).

Further, claims 10, 11 and 13-15 stand rejected under 35 USC §103(a) as being unpatentable over Christie in view of DeGroof and further in view of Jachimowicz.

It is respectfully requested that these rejections should be withdrawn for at least the following reasons, including that the references, taken alone or in combination, fail to disclose the claimed feature of the displays each output polarized light incident on the beam splitter, the **polarization of the light incident on the beam splitter from each display being along the same direction** at 45 degrees to the common linear axis.

Each of independent claims 1, 8, 10, 16, 19, 28, 35, 36 and 37, as previously amended for clarity, or as previously presented, recites a display system or display

method that includes a pair of displays at an obtuse angle to each other and a beam splitter positioned relative to the two displays at the bisectrix of the obtuse angle to combine images from the displays, wherein the displays each output polarized light incident on the beam splitter where the **polarization of the light incident on the beam splitter** from each display is **along the same direction at 45 degrees to the length and width of the displays** or the polarization for both displays is circular in the same sense (right-handed circular polarization or left-handed circular polarization).¹

“Along the Same Direction” vs. “Polarization Along the Same Direction”

In rejecting the claims, the Examiner appears to conclude that having light **directed** along the same direction is equivalent to the claimed provision of the **polarization** of the light incident on the beam splitter from each display being along the same direction. With this interpretation, the Examiner appears to be viewing the claims as only discussing light propagation “along the same direction” rather than the claimed provision of the **polarization of light** incident of the beam splitter from each display being along the same direction.

For example, the Examiner asserts on pages 20-21 of the Office Action that “[t]he term ‘polarization in the same direction’ could be interpreted as the direction of the polarized light is toward the same destination.” As pointed out during the prior telephone interview with the Examiner and in the prior reply, this interpretation is not only inconsistent with the specification, it is inconsistent with the general meaning of polarization and **polarization direction**.

While the USPTO is to give the claims their broadest reasonable interpretation, that interpretation must be consistent with the specification. See, e.g., *In re Philips*.

As previously discussed, Christie fails to disclose the claimed display systems and display methods including a pair of displays wherein the polarization of light incident on the beam splitter is along the same direction at 45 degrees to the length and width of the displays (or at 45 degrees to a common linear axis, as is recited in amended claim 1).

¹ See, e.g., previously amended claim 10.

Rather, Christie has been found to disclose a pair of displays having orthogonal polarization. For example, at col. 9, lines 13-14, Christie discloses that “output polarizers of image LCDs 205r, 205l are oriented in **orthogonal directions**.” (Emphasis added). Disclosure of displays having orthogonal polarization is insufficient to support a rejection of displays where polarization is the same at 45 degrees to the length and width of the displays or displays wherein polarization of light incident on the beam splitter from each display is along the same direction at 45 degrees to the length and width.

In addition, neither DeGroof, Grimm, nor Jachimowicz have been found to cure the above-noted deficiencies of Christie with respect to the pending independent claims.

Like Christie, DeGroof discloses a pair of displays having orthogonal polarizations (having polarizations that are crossed by 90 degrees, e.g., horizontal polarization and vertical polarization). At col. 2, lines 32-40 (reproduced below), DeGroof discloses displays having orthogonal polarizations.

A semi-transparent mirror 5 is disposed so that it bisects the angle between the LCDs. The light depicting the image for one eye emitted by one LCD is polarized at 90.degree. to the light depicting the other image for the other eye emitted by the other LCD. For example, the light emitted by LCD 3 is intended for viewing by the right eye of the user, and is horizontally polarized. The light emitted by LCD 1 is intended for viewing by the left eye of the user, and is vertically polarized.

DeGroof, col. 2, lines 32-40.

Similarly, Jachimowicz fails to cure the above-noted deficiencies of Christie and DeGroof, taken alone or in combination, with respect to the independent claims discussed above. At col. 2, lines 37-43 discusses displays arranged and bisected by a beam splitter where the displays have “S” polarization and “P” polarization that are orthogonal.

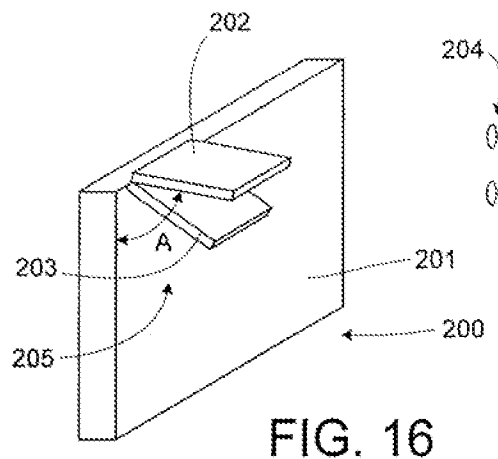
Grimm is concerned with a vision testing system that includes a single display. Grimm also fails to disclose the claimed provision of a **pair of displays** wherein the displays each output polarized light incident on the beam splitter where the **polarization of the light incident on the beam splitter from each display is along the same direction** at 45 degrees to the length and width of the displays.

For at least these additional reasons, the rejections of independent claims 1, 8, 10, 16, 19, 28, 35, 36 and 37, as well as their respective dependent claims, should be withdrawn.

The respective dependent claims, while reciting further features, are not being independently discussed inasmuch as they are allowable for at least the same reasons as the independent claims from which they depend. This absence of any comment regarding the dependent claims, however, should not be construed as an acquiescence to the contentions made in the Office Action.

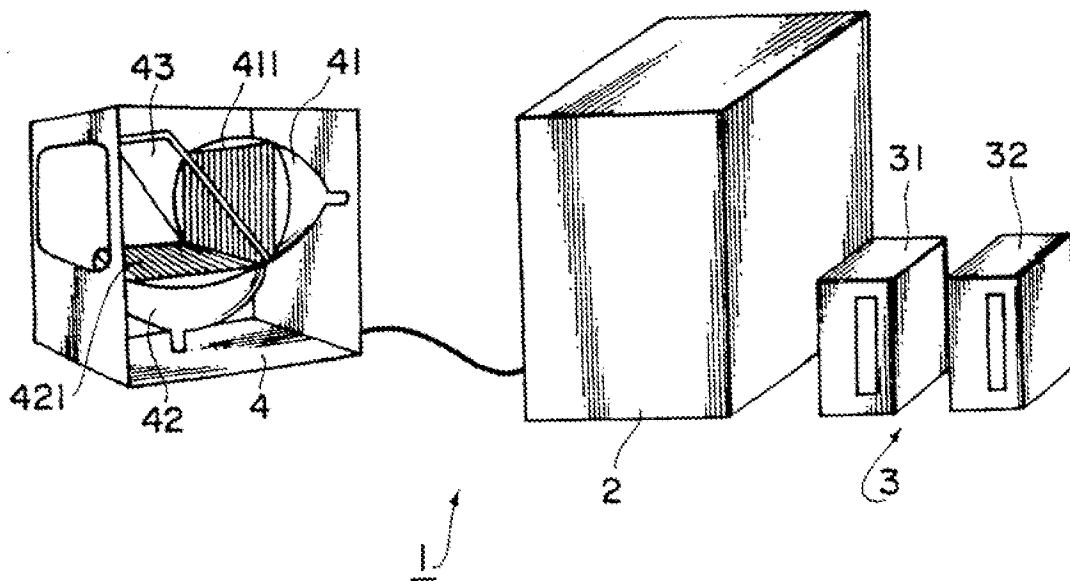
Independent claim 24 stands rejected under 35 USC §103(a) as being unpatentable over Christie in view of Grimm, and further in view of U.S. Patent No. 5,519,485 ("Ohtani"). It is respectfully submitted that the rejection should be withdrawn for at least the following reasons.

Claim 24, as amended, recites a display system that includes a first display device having a length and a width and optical polarization characteristics, a second display device having a length and a width smaller than the first display device and having optical polarization characteristics, the second display device being at an angle to the first display device and a beam splitter at the bisectrix of the angle between the first and second displays. The first display device and the second display device have optical polarization in the same direction at an angle of 45 degrees relative to the length and width of the display devices. FIG. 16 of the present application (reproduced below) shows an exemplary depiction of the display system recited in claim 24.



As noted above, Christie fails to disclose the claimed provision of a first display and a second display having **optical polarization in the same direction** at an angle of 45 degrees relative to the length and width of the displays. Grimm and Ohtani fail to cure the deficiencies of Christie with respect to this claimed feature. For at least this reason, the rejection of amended claim 24 should be withdrawn.

The Office Action recognizes that Christie fails to disclose the claimed display system, including a first display having optical polarization characteristics and a second display smaller in area than the first display. The Office Action now turns to Ohtani to cure the deficiencies of Christie with respect to claim 24. However, it is respectfully submitted that Ohtani fails to cure the deficiencies of Christie with respect to claim 24



because Grimm and Ohtani fail to disclose the claimed display system including a first display device having optical polarization characteristics and a second display device having a length and a width smaller than the length and width of the first display device.

Rather, Ohtani has been found to disclose a pair of displays that are the same size. For example, FIG. 1 of Ohtani (reproduced below) shows display 41 and display 42 being of the same size.²

At col. 3, line 64 - col. 4, line 4, Ohtani appears to describe display device 41 and display device 42 each having a main screen 411 and a sub screen 412 (not shown in FIG. 1). This disclosure, when viewed in connection with FIG. 1, appears to describe two display devices (41) and (42) that are of the same size, where each display is used to display multiple images (on the main display space and on the sub display space of each display). As such, Ohtani fails to disclose the display system arranged as claimed claim 24 (see, for example, FIG. 16 above).

For at least this additional reason, the rejection of claim 24 and the corresponding dependent claims should be withdrawn.

Telephone Correspondence

In the interests of advancing this application to allowance and compact prosecution, it is respectfully requested that the Examiner telephone the undersigned to discuss any of the foregoing with which there may be some controversy or confusion or to make any suggestions that the Examiner may have to place the application in condition for allowance.

² Ohtani also discloses the displays 41 and 42 having orthogonal polarization characteristics. See, e.g., col. 3, lines 26-36.

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In view of the foregoing, request is made for timely issuance of a notice of allowance.

Respectfully submitted,

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